

REMARKS

Applicants cancelled claim 2 and added new claim 10. Claims 1 and 3-10 are presented for examination.

Objections

The Examiner objects to the abstract of this disclosure because the abstract should appear on a separate sheet. Applicants have amended the specification to obviate this objection.

Claim Rejections - 35 U.S.C. §103

The Examiner rejected independent claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Sawano et al., U.S. Patent Number 6,142,625 (henceforth, Sawano). Initially, Applicants note that the Examiner's assertion (Office Action, pages 2-3) that:

[i]t should also be noted that the [Applicants'] broad recitation of "optimization" without and [sic] detailed structure is not patentably distinguishable over the prior art as it is naturally inherit [sic] to optimize the performance or quality of a given invention.

is unfounded. Applicants do not broadly claim "optimization" of a lens. To the contrary, Applicants' claim 1 recites a:

[m]ethod for determination of an ophthalmic lens for a wearer for whom a near-vision and far-vision astigmatism prescription has been made out, the near-vision astigmatism being different from the far-vision astigmatism, the method comprising the steps of:

- choosing a starting lens and defining a current lens equal to the starting lens;
- optimization, in worn conditions, of the current lens using as a target the astigmatism for which the wearer has been given a prescription for far vision and the astigmatism for which the wearer has been given a prescription for near vision.

Thus, Applicants recite optimization under certain conditions (worn conditions), using a specific initial condition (the starting lens), a specific item to be optimized (the current lens), and a specific target (the astigmatism for which the wearer has been given a prescription for near vision and far vision). For example, although it is to be understood that the scope of the claims is not limited to the examples in specification, Applicants disclose that, in one embodiment:

[o]nce the targets are defined, the lens is determined by optimization. For this purpose, a current lens is considered; on initialization, this current lens is the starting lens. The characteristics of the current lens are varied in order to approach the target values. For this optimization, various representations can be used of the surface or surfaces which vary. In [one] example, only the rear face of the lens is varied, but the front face could also be varied. The face or faces which vary can be represented by Zernicke polynomials; an aspherical layer, superposed on one or other of the faces, can be used and this aspherical layer can be varied.... The optimization can use the techniques which are known per se. In particular, the method of optimization by damped least squares (DLS) can be used. (Published application, paragraphs 0074-0075)

In light of the above, Applicants submit that, taken as a whole, the optimization step recited in claim 1 is not simply a general suggestion to optimize the performance of the invention. Instead, the step is a valid method step which must be considered in any obviousness analysis of claim 1.

Turning to the cited reference, Sawano does not disclose, teach, or suggest the method of claim 1. Sawano discloses a toric multifocal lens including a plurality of vision correction regions having centers on a common optical center axis. At no point does Sawano disclose, teach, or suggest determining the properties of the toric lens by choosing a starting lens, defining a current lens equal to the starting lens, optimizing the current lens in worn conditions, and using as a target the astigmatism prescribed for a wearer in near and far vision, as required by claim 1. To the contrary, Sawano specifically teaches a:

[m]ethod of determining an optical power for correction of astigmatism in a toric multifocal lens...including a near vision correction region and a distant vision correction region...comprising: determining the cylindrical optical power and the cylindrical axis orientation in the near [and far] vision correction region[s] based on astigmatic data on an eye of a wearer of the toric multifocal lens measured during viewing of near [and far] objects. ... [T]he astigmatic corrective optical power is suitably determined for each of the near and distant vision correction regions, by taking account of different astigmatic

conditions of the eye which result from various factors of the eye such as a change of the shape of the crystalline lens, which change takes place due to a change in a distance from the wearer's eye to the desired object when the wearer's line of vision is shifted from the near objects to the distant objects, or vice versa, and a change of the diameter of the pupil. (Sawano, col. 7, lines 35-64)

Thus, this method features the *direct determination* of the optical properties of two lens regions (i.e., the near and far vision correction regions) of a lens based on conditions of the eye. The method of Sawano does not include any optimization step. As no optimization is performed, no initial condition, condition for optimization, or target for an optimization is suggested.

It appears that the method of Sawano achieved its desired result. Thus, a person skilled in the art at the time of the invention would have had no motivation to abandon the method of determining the optical properties of the toric lens taught by Sawano. Even if an alternate method were sought, Sawano did not disclose, teach, or suggest choosing a starting lens, defining a current lens equal to the starting lens, and optimizing the current lens in worn conditions using as a target the astigmatisms prescribed for a wearer in near and far vision, as required by claim 1. Accordingly, Applicants request reconsideration and withdrawal of the rejection of independent claim 1 under 35 U.S.C. § 103(a).

The Examiner rejects claims 2-8 under 35 U.S.C. § 103(a) as being unpatentable over Sawano. Claims 2-8¹ depend from independent claim 1, and thus are non-obvious in light of Sawano for at least the reasons above. Accordingly, Applicants request reconsideration and withdrawal of the rejection of pending claims 3-8. Although it is unnecessary to further address the Examiner's arguments regarding the dependent claims, Applicants do not concede that, as stated by the Examiner:

[i]t should also be noted that measurement of astigmatism as being measured in a reference frame linked to the eye and in binocular vision, as claimed in dependent claims 2 and 3, are very well known in the art and do not render the instant invention patentably distinct over the prior art. (Office Action, page 3)

¹Applicants cancelled claim 2, but incorporated the limitations of claims 1 and 2 into new claim 10, which will be addressed below.

The Examiner rejected independent claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Sawano. Claim 9 covers a lens obtained by the method steps of Applicants claim 1. For at least the above reasons, Sawano does not disclose, teach or suggest a lens obtained by these method steps. Accordingly, Applicants request reconsideration and withdrawal of the rejection of independent claim 9.

New Claim

Applicants added claim 10, which incorporates all of the limitations recited by claims 1 and 2 prior to this amendment. Accordingly, Applicants submit that claim 10 is in patentable condition for at least the reasons above. Additionally, in rejecting claim 2, as previously presented, the Examiner said that

It should also be noted that measurement of astigmatism as being measured in a reference frame linked to the eye and in binocular vision, as claimed in dependent claims 2 and 3, are very well known in the art and do not render the instant invention patentably distinct over the prior art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lens having far and near vision regions with astigmatism correction as taught by Sawano et al to develop a method of determining an ophthalmic lens for a wearer for optimization. (Office Action, page 3)

Applicants disagree. As noted above, Applicants do not concede that measurement of astigmatism in binocular vision was well known in the art at the time of the invention. However, even if that were the case, there is no teaching or suggestion in Sawano to modify his invention to

...optimize, in worn conditions, [a] current lens using as a target the astigmatism for which the wearer has been given a prescription for far vision and the astigmatism for which the wearer has been given a prescription for near vision, said near-vision astigmatism prescription being measured in binocular vision...

as required by claim 10. To the contrary, it appears that the method of Sawano achieved its desired result. Thus, a person skilled in the art at the time of the invention would have had no

motivation to abandon the method of Sawano. Accordingly, Applicants submit that, for at least these reasons, claim 10 is in patentable condition, and ask that this claim be allowed.


Conclusion

In light of the above, Applicants submit that claims 1 and 3-10 are in patentable condition. Applicants request that the application be allowed. Canceled claims have been canceled without prejudice or disclaimer. Any circumstance in which Applicants have: (a) addressed certain comments of the Examiner does not mean that Applicants concede other comments of the Examiner; (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims; or (c) amended or canceled a claim does not mean that Applicants concede any of the Examiner's positions with respect to that claim or other claims.

Enclosed is a Petition for One Month Extension of Time. The fees in the amount of \$120 are being paid concurrently on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other required fees to deposit account 06-1050, referencing the attorney docket number shown above.

Respectfully submitted,

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